

Name \_\_\_\_\_

## DATA ANALYSIS

1. Which blocks (A-E) float? List the **letters**.
2. Which blocks (A-E) sink? List the **letters**.
3. Which block has a larger mass, 1C or 2D?
4. Which block has a larger mass, 4B or 1E?
5. Do objects with a larger mass always sink? Explain your answer. Based on your above responses give an example or non-example that supports your answer.
6. Which block has a smaller volume, 1A or 3C?
7. Which block has a smaller volume, 5B or 6D?
8. Do objects with a smaller volume always float? Explain your answer. Based on your above responses give an example or non-example that supports your answer.
9. Blocks 1B-6B are all made of the same material. Compare your masses, volumes, and densities for blocks 1B-6B. Now, based on that data, which **ONE** of the following properties do you think objects made of the same material always have in common? A. similar mass B. similar volume C. similar density (**Circle 1**)
10. Blocks 1D-6D are all made of the same material. Compare your masses, volumes, and densities for blocks 1D-6D. Now, based on that data, which **ONE** of the following properties do you think objects made of the same material always have in common? A. similar mass B. similar volume C. similar density (**Circle 1**)
11. What is the density of water?
12. How do the densities of blocks 1A-6A, 1D-6D, and 1E-6E compare with the density of water? (**Circle 1**)  
A. all less than the density of water B. all more than the density of water C. no relationship
13. How do the densities of blocks 1B-6B and 1C-6C compare with the density of water? (**Circle 1**)  
A. all less than the density of water B. all more than the density of water C. no relationship
14. Which **one** of the following factors determines whether an object will float or sink: mass, volume, or density?
15. Using COMPLETE SENTENCES, complete the evidence based explanation on the back of this sheet. (6pts)

Name \_\_\_\_\_

## EVIDENCE BASED EXPLANATION

Using the *class data* collected from this lab, write an **evidence based explanation** to explain why some of the blocks floated AND why others sank in water. Complete the claim below, and support your answer with evidence and reasoning. **Use complete sentences for each part.**

CLAIM:

Blocks float in water if \_\_\_\_\_.

Blocks sink in water if \_\_\_\_\_.

EVIDENCE: Use specific data (#s) about your floating AND sinking blocks to support your answer. Include units with your numbers!

REASONING: Explain the role of MASS, VOLUME, and DENSITY in terms of floating and sinking. Be sure to include information about the blocks AND water.